A.4 COMPOSITION OF METALLIC AND OTHER MATERIALS

TABLE A.4

Composition of Metallic and Other Materials

No.	*Material*	*Manufacturer*	*Composition or Description*
Metals			
17	Aluminum		
19	Aloyco-20	Alloy Steel Products Co.	Fe; 19–21 Cr; 28–30 Ni; 4.0–4.5 Cu; 2.5–3.0 Mo; 1.5 max. Si; 0.65–0.85 Mn; 0.07 max. C
19a	720 Alloy	General Plate	20 Mn; 20 Ni; Cu
54–60	Brass		Various commercial grades ranging 60–65 Cu; 35–40 Zn; 0.5–3.0 Pb
63	Brass, red		85 Cu; 15 Zn
66	Bronze, comm.		90 Cu; 10 Zn
73	Bronze, phosphor, 5% A		94.8–95.5 Cu; 4.3–5 Sn; P
74	Bronze, phosphor, 8% C		Cu; 7–9 Sn; 0.03–0.25 P
75	Bronze, phosphor 10% D		89.5–90 Cu; 10–10.5 Sn; P
76	Bronze, phosphor, spec. free cutting		88 Cu; 4 Zn; 4 Sn; 4 Pb
81	CA-FA20	Cooper Alloy	Fe; 19–21 Cr; 28–30 Ni; 3.5 Mo; 4–4.5 Cu; 0.07 max. C
82	CA-MM	Cooper Alloy	67 Ni; 30 Cu; 1.4 Fe; 0.1 Si; 0.15 C
86	Cast iron		Ordinary unalloyed cast iron
88	Chlorimet 2	Duriron Co.	63 Ni; 32 Mo; 3 max. Fe; 0.15 max. C; 1 Si; 1 Mn
89	Chlorimet 3	Duriron Co.	60 Ni; 18 Mo; 18 Cr; 2 Fe; 0.07 max. C; 1 Si; 1 Mn
111	Copper		99.9 + Cu
112	Copper, Be		97.5 Cu; 2.15 Be; 0.35 Ni
119	Corrosion	Pacific Fdry.	Fe; 14.5 Si
140	Durichlor	Duriron Co.	Fe; 0.85 C; 14.5 Si; 3 Mo; 0.35 Mn
141	Durimet 20	Duriron Co.	Fe; 20 Cr; 29 Ni; 0.07 max. C; 2 Mo; 4 Cu; 1 Si
142	Durimet T	Duriron Co.	Fe; 19 Cr; 22 Ni; 0.07 max. C; 2 Mo; 1 Cu; 1 Si
143	Duriron	Duriron Co.	Fe; 0.80 C; 14.5 Si; 0.35 Mn
148	Everdur 1000	Amer. Brass	94.9 Cu; 4 Si; 1.1 Mn
149	Everdur 1010	Amer. Brass	95.8 Cu; 3.1 Si; 1.1 Mn
150	Everdur 1015	Amer. Brass	98.25 Cu; 1.5 Si; 0.25 Mn
156	Gold		99.99 Au
156a	Green gold		75% Au; 25% Ag
159	Hastelloy A	Haynes Stellite	Ni; 17–21 Mo; 17–21 Fe
160	Hastelloy B	Haynes Stellite	Ni; 24–32 Mo; 3–7 Fe; 0.02–0.12 C
161	Hastelloy C	Haynes Stellite	Ni; 14–19 Mo; 4–8 Fe; 0.04–0.15 C; 12–16 Cr; 3–5.5 W
162	Hastelloy D	Haynes Stellite	Ni; 8–11 Si; 2–5 Cu; 1 max. Al

(*continued*)

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TABLE A.4 (continued)

Composition of Metallic and Other Materials

No.	*Material*	*Manufacturer*	*Composition or Description*
163	Stellite 1	Haynes Stellite	Co; 28–34 Cr; 11–15 W
165	Stellite 6	Haynes Stellite	Co; 25–31 Cr; 3–6 W
184	Inconel	Int'l Nickel	79.5 Ni; 13 Cr; 6.5 Fe; 0.08 C; 0.2 Cu; 0.25 Mn
191	Lead		99.9 + Pb
192	Lead, antimonial		94 Pb; 6 Sb
193	Lead, antimonial		Pb; 4–12 Sb
196	Lead, chemical		99.93 Pb; 0.06 Cu
200	Lead, Te		99.88 Pb; 0.045 Te; 0.06 Cu
216	Monel	Int'l Nickel	67 Ni; 30 Cu; 1.4 Fe; 0.1 Si; 0.15 C
219	Muntz metal		60 Cu; 40 Zn
224	Nickel	Int'l Nickel	99.4 Ni; 0.2 Mn; 0.1 Cu; 0.15 Fe; 0.05 Si
224a	Z-Nickel	Int'l Nickel	95 + Ni
226	Nickel–silver 18% A		65 Cu; 18 Ni; 17 Zn
227	Nickel–silver 18% B		55 Cu; 18 Ni; 27 Zn
227a	Ni-span	Int'l Nickel	Ni, Ti, Cr, C, Mn, Si, Al
229	Ni-hard	Int'l Nickel	Fe; 3.4 C; 1.5 Cr; 4.5 Ni; 0.6 Si
231	Ni-resist	Int'l Nickel	Fe; 2.8 C; 14 or 20 Ni; 6 Cu (optional); 2 Cr; 2 Si
240	Platinum		99.99 Pt
268	Silver		99.9+ Ag
275	S.S. 301		Fe; 16–18 Cr; 6–8 Ni; 0.08–0.15 C
276	S.S. 302		Fe; 17–19 Cr; 8–10 Ni; 0.08–0.15 C
278	S.S. 303		Fe; 17–19 Cr; 8–10 Ni; 0.15 max. C; 0.07 min. P, S, Se; 0.6
279	S.S. 304		Fe; 18–20 Cr; 8–11 Ni; 0.08 max. C; 2 max. Mn
282	S.S. 310		Fe; 24–26 Cr; 19–22 Ni; 0.25 max. C
283	S.S. 316		Fe; 16–18 Cr; 10–14 Ni; 0.1 max. C; 1.75–2.75 Mo
284	S.S. 317		Fe; 17.5–20 Cr; 10–14 Ni; 0.1 max. C; 3–4 Mo
285	S.S. 321		Fe; 17–19 Cr; 8–11 Ni; Ti, 5xC min.
286	S.S. 347		Fe; 17–19 Cr; 9–12 Ni; Cb, 10xC min.
287	S.S. 403		Fe; 11.5–13 Cr; 0.15 max. C
290	S.S. 410		Fe; 11.5–13.5 Cr; 0.15 max. C
292	S.S. 416		Fe; 12–14 Cr; 0.15 max. C; 0.07 min. P, S, Se; 0.6 max. Zr, Mo
295	S.S. 430		Fe; 14–18 Cr; 0.12 max. C
303	S.S. 446		Fe; 23–27 Cr; 0.35 max. C; 0.25 max. N
360a	Steel		Plain carbon steel
368	Tantalum	Fansteel	99.9 + Ta
390	Worthite	Worthington Pump	Fe; 20 Cr; 24 Ni; 0.07 max. C; 3.25 Si; 3 Mo; 1.75 Cu; 0.5 Mn
Carbon and graphite			
401	Karbate (carbon)	National Carbon	Impervious carbon
402	Karbate (graphite)	National Carbon	Impervious graphite
Ceramics			
611	Lapp porcelain	Lapp Insulator Co.	Chemical porcelain
614	Pfaudler glass lining	Pfaudler Co.	Glass-lined steel equipment
615	Plate glass		Polished plate glass, flat or bent
616	Pyrex	Corning Glass Wks.	Glass
Plastics			
700	Ace Saran	American Hard Rubber	Vinylidene chloride
710	Geon	B. F. Goodrich	Polyvinyl chloride
711	Haveg 41	Haveg Corp.	Phenolic-asbestos
712	Haveg 43	Haveg Corp.	Phenolic-graphite
713	Haveg 60	Haveg Corp.	Furan-asbestos
714	Haveg 63	Haveg Corp.	Furan-graphite
715	Heresite M 66	Heresite & Chem. Co.	Transparent molding powder

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TABLE A.4 (continued)

Composition of Metallic and Other Materials

No.	*Material*	*Manufacturer*	*Composition or Description*
716	Heresite MF 66	Heresite & Chem. Co.	Black molding powder
717a	Kel-F	M. W. Kellogg	Polymerized trifluoroethylene
718	Koroseal	B. F. Goodrich	Plasticized polyvinyl chloride
731	Nylon FM-101	E. I. du Pont	Injection, compression and extrusion moldings (tubing, sheeting, wire covering, gasketing)
731a	Plastisol		Polyvinyl chloride
735	Polythene	E.I. du Pont	Polyethylene
740	Saran	Dow Chemical	Vinyl chloride-vinylidene chloride copolymer
740a	Sirvene	Chicago Rawhide	Synthetic rubber
742	Teflon	E.I. du Pont	Polymerized tetrafluoroethylene
746	Tygon	U.S. Stoneware	Synthetic compounds
Rubber			
800	Ace hard rubber	American Hard Rubber	Vulcanized rubber
805	Butyl (GR-I)	Stanco Distributors	Solid copolymer of isobutylene and isoprene
820	Hycar (GR-A)	B. F. Goodrich	Nitrile type synthetic rubber
829	Neoprene	E. I. du Pont	Polymer of chloroprene
836	Natural (soft)		
837	Natural (hard)		
838	GR-S (soft)		
839	GR-S (hard)		
853	Thiokol (GR-P)	Thiokol Corp.	1

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